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# NEW AND NOTEWORTHY PLANTS FOR KARNATAKA STATE

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## ABSTRACT

13 new and noteworthy plants for the State of Karnataka are discussed in the present paper. Of these two *Albizia julibrissin* Durazz. and *A. mollis* Boiv., are Himalayan species and show disjunct distribution ; three *viz. Pavonia arabica* Hochst. ex Steud., *Tephrosia uniflora* Pers. subsp. *petrosa* (Blatt. & Hall.) Gill. & Ali and *Salvia aegyptiaca* L., are dry area plants and show discontinuous distribution ; two *viz. Schouwia arabica* (Vahl) A. P. DC. and *Crotalaria vestita* Baker are recorded for the first time from Peninsular India ; and the remaining six plants are new recrods for Karnataka State.

## INTRODUCTION

The present day State of Karnataka has no separate flora of its own, even though it has atracted the attention of many workers right from the days of Buchanan—Hamilton (1807). While Cooke (1901-08) deals with a few north-western districts, Gamble (1915-36) has covered only the southern-most part of the State. Notable amongst other workers are from Horticultural and Forest Departments and so also of Botanical Survey of India besides from the Universities of Mysore & Bangalore. Recently three district floras for Bangalore, Hassan and Mysore have been published by Ramaswamy & Razi (1973), Saldanha & Nicolson (1976) and Rao & Razi (1981) respectively. However, 13 plants presented below are not recorded so far from the state and therefore discussed as interesting and noteworthy from their distribution point of view in eastern Karnataka.

In the following enumeration the nomenclature has been brought up-to-date and includes the original citation, basionym and selected other relevant references. Notes including distribution, discussion & habitat follows each taxa and whenever some species closely resembles another one, their distinguishing characters are given. This is followed by flowering-fruiting (Fl. & Fr.) period and the specimens examined, which are deposited in the herbarium of the Botanical Survey of India, Western Circle, Pune (BSI) under the author's name *N. P. Singh* and hence it shall not appear in the list hereafter as all the collections have been made by the author himself, except otherwise mentioned.

## ENUMERATION

### BRASSICACEAE

**Schouwia arabica** (Vahl) A. P. DC. Syst. 2: 644. 1821 ; Rao in Bull. Bot. Surv. India 5: 265-67, Pl. I. 1963 (1964).

A native of Abyssinia, Arabia & Egypt, it was recorded by Rao (*l. c.*) for the first time for India from Ratnagiri & Poona districts in Maharashtra State on the basis of specimens collected from 1959-62. He expressed a doubt that the plant might have secured a foothold independently in some coastal towns and it is possible that either it was not recognised or was known under a wrong name. This view point is supported by its present collection from Bellary district in Karnataka, though not a coastal area. This extends its distribution southwards

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to Peninsular India. It was collected only once from a fallow cultivated field and was confined to an area of about 30 × 30 m only. It is supposed to cause jaundice in cattle.

*Fl. & Fr.*: Jan.-Feb.

*Specimen examined*: Bellary district: Torangallu cross on Sandur-Bellary Road, 23 km, 142431.

### MALVACEAE

**Pavonia arabica** Hochst. ex Boiss. Fl. Or. 1: 837. 1867.

While Masters (1874) & Cooke (1958) record it from Sind, now in Pakistan, Bhandari (1978) gives its distribution in India as N. W. Rajasthan and Shah (1978) records from Kutch in Gujarat. Not recorded so far from the Peninsular India and therefore, the present record from Yadgir taluka of Gulbarga district is an interesting new record for Karnataka State in particular and the Peninsular India in general. Rare, collected only once growing amongst huge boulders. The occurrence of this desert species indicates the extent of aridity of the area.

*Fl. & Fr.*: May.

*Specimen examined*: Gulbarga district: Bhimnali Reserve Forest, 147037.

### FABACEAE

**Crotalaria vestita** Baker in Fl. Brit. Ind. 2: 67. 1876.

So far supposed to be endemic to Maharashtra and Gujarat but the present record from Bijapur and Gulbarga in north-eastern Karnataka adjoining Maharashtra State extends its distribution further southwards being an interesting new record for Karnataka State in particular and in Peninsular India in general. A weed of cultivated fields and waste lands along the roadsides near moisture. Closely resembles *C. prostrata* Rottl. ex Willd. but can be differentiated from it as follows:

| | |
|---|---|
| 1a. Bracts foliaceous, lanceolate ; calyx exceeding 6 mm long .. | *C. vestita* |
| 1b. Bracts minute, subulate ; calyx not exceeding 5 mm long .. | *C. prostrata* |

*Fl. & Fr.*: Nov.-Feb.

*Specimens examined*: Gulbarga district: Gulbarga-Humanabad Road, 22nd mile, 141792. Bijapur district: Hungund, on Mudgal Road. 129716; Kushtagi-Hungund Road, 43 km, 142530.

**Tephrosia uniflora** Pers. Syn. Pl. 2: 329. 1807 subsp. **petrosa** (Blatt. & Hall.) Gill. *et* Ali, Kew Bull. 1958: 114. 1958. *T. pauciflora* Grah. (in Wall. Cat. 5635. 1831-32) ex Baker in Hook. f. Fl. Brit. Ind. 2: 114. 1876, *p. p.*

So far recorded from Punjab, Rajasthan and Gujarat (and Sind) only in India Baker (*l.c.*), Cooke (1958), Bhandari (1978) & Shah (1978). With the present record, this typical dry area plant now extends its distribution to Karnataka State in particular and Peninsular India in general. Growing amongst grasses near nallahs in Bijapur and Bellary districts.

*Fl. & Fr.*: Sept.-Nov.

*Specimens examined*: Bijapur district: Badami hills, *Paraniapye* s. n. Bellary district: Harihar-Harpanhalli Road, 21 km, 141288.

### MIMOSACEAE

**Albizia julibrissin** Durazz. Mag. Tosc. III, 4: 11. 1772.

So far known to occur only throughout Himalayas in India besides Abyssinia, Eastern & Central Asia, China & Japan (Baker, 1878). Its present record from Deogiri Reserve Forest in Bidar district and Chincholi Reserve Forest in Gulbarga district, the two adjacent localities lying in the same continuous hill range, therefore, indicates its disjunct distribution. 7-8 m tall trees along nallahs or in rocky soils at lower elevations of 500-600 m alt., almost naturalized.

*Fl. & Fr.*: Jan.-Feb.

*Specimens examined*: Bidar district: Deogiri Reserve Forest, 142792. Gulbarga district: Chicklingdahalli-Shadipur Road, Chincholi Reserve Forest, 128665; Chicklingdahalli, Chincholi Reserve Forest, 142699.

**A. mollis** Boiv. Encycl. 19 Siecle 2: 33. 1838.
*A. julibrissin* Durazz. var. *mollis* Benth. ex Baker in Hook. f. Fl. Brit. Ind. 2: 300. 1878.

This is also a Himalayan species and its present record from Bidar & Bellary districts in the Peninsular India shows its disjunct distribution. 5-7 m tall trees in deciduous forests at 600-800 m alt., almost naturalised.

It closely resembles *A. julibrissin* Durazz., with which it has been variously treated either as conspecific or as a variety. As such the recent work of Nair (1977) has been followed for the present, who treats them as distinct species. The two can be differentiated as follows:

| | |
|---|---|
| 1a. Leaflets narrower, 5 mm broad or less; peduncles & leaflets laxly pubescent or glabrous .. | *A. julibrissin* |
| 1b. Leaflets broader, about 6 mm broad; peduncles & leaflets comparatively more pubescent .. | *A. mollis* |

*Fl. & Fr.*: Nov.-Jan.

*Specimens examined*: Bidar district: Deogiri Reserve Forest, 141872. Bellary district: Temple Forest Area, 142403.

**Mimosa prainiana** Gamble, Fl. Pres. Madras 421 (1: 297. 1957, rep. ed.). 1919 & in Kew Bull. 1920: 5. 1920.

It was so far confined to Andrha Pradesh (Gamble, *l. c.*) and is for the first time reported from the adjoining Bidar, Bijapur, Raichur and Bellary districts of Karnataka State. However, it remains endemic to Peninsular India only. 1-3 m tall shrubs or small trees in scrub forests and along the roadsides at lower elevations.

*Fl. & Fr.*: Aug.-Nov.

*Specimens examined*: Bidar district: Karakanalli Reserve Forest, 141856; Birnali Reserve Forest, 142806. Bijapur district: Bagalkot-Hungund Road, 17 km, 132731; Mangalore Reserve Forest, 141617; Sindi-Bijapur Road, 50th km, 142916. Raichur district: Jalhalli Reserve Forest, 141713. Bellary district: Gunda Reserve Forest, 141505.

## LYTHRACEAE

**Rotala ocultiflora** Koehne, Bot. Jahrb. 1: 152. 1880 *et* Pflanzenr. 17: 40, t. 2B: 1903.

So far represented from "W. coast in Malabar", Kerala (Gamble, 1957), Maharashtra (Blatter & Hallberg, 1918 & Santapau, 1967) and Gujarat (Santapau, 1962) but not from Karnataka State, for which the present one from Kolar district is a new record and is therefore, an interesting plant from the area. A small, aquatic plant in a rock depression, growing gregariously at 940 m alt.

*Fl. & Fr.*: Oct.

*Specimen examined*: Kolar district: Chickballapur-Bagepalli Road, 17th km, 141091.

## CUSCUTACEAE

**Cuscuta campestris** Yuncker in Mem. Torrey bot. Cl. 18: 138, f. 14. 1932; Sant. & Korl. in J. Bombay nat. Hist. Soc. 62(3): 598. 1965; Singh in J. Bombay nat. Hist. Soc. 69(2): 456. 1972; Srinivasan in Bull. Bot. Surv. India 15: 160. 1973.

Santapau & Korlahalli (*l. c.*) were the first ones to record the occurrence of this North American taxon in India from Calcutta. Subsequently, Singh & Srinivasan (*ll. cc.*) reported from Pune in Maharashtra State (Western India) and Coimbatore in Tamil Nadu (South India) respectively. Its present record from Bellary district forms a new record for Karnataka State and fourth report from India. It also suggests that either the plant is spreading very fast or it was already existing but not identified properly so far. A parasite growing on the banks of Agari river on *Ipomoea pescaprae* (L.) Sweet, a hitherto unreported host.

*Fl. & Fr.:* Aug.-Sept.

*Specimen examined*: Bellary district: Benkal Forest Plantation, Moka, 132909.

### GESNERIACEAE

**Didymocarpus innominatus** B. L. Burtt in Notes Roy. Bot. Gard. Edinburgh 21(4): 201. 1954. *D. rottlerianus sensu* C. B. Cl. in DC. Mon. Phan. 5: 101. 1883, *excl. vars. et* in Hook. f. Fl. Brit. Ind. 4: 353. 1884, *excl. var.*

So far reported from Tamil Nadu & Kerala States and also from adjoining 'Kurg' (Coorg) mountains (Clarke, *l. c.* & Gamble, 1957). The present record from Chitradurg distrirt in eastern Karnataka, adjoining Andhra Pradesh, extends its distribution northwards. Rare, scapigerous herbs growing and covering the gap between two huge rorks at an altitude of 675 m. Confined to the spot.

*Fl. & Fr.*: Nov.-Dec.

*Specimen examined*: Chitradurg district: Hereadvi State Forest, Molkalmuru, 141441.

### LAMIACEAE

**Salvia aegyptiaca** L. Sp. Pl. 23. 1753.

So far confined to Punjab and Rajasthan (Mukerjee, 1940 and Bhandari, 1978) in India. The present record from Bijapur district therefore, is very interesting being a discontinuous distribution and makes a new record for Karnataka in particular and Peninsular India in general. 10-15 cm high herbs or undershrubs in gravelly open, grassy patches.

*Fl. & Fr.*: Aug.

*Specimens examined*: Bijapur district: Madhbhavi Pasture Plot, 142951; Bijapur (an old sheet in *BSI*) without any more information.

### NYCTAGINACEAE

**Boerhavia crispa** Heyne (in Wall. Cat. 6771. 1832) ex Hook. f. Fl. Brit. Ind. 4: 709. 1885.

A rare plant so far reported to occur in Deccan peninsula by Hooker f. (*l.c.*) or Deccan, in dry districts by Gamble (1957) based on the same collection of Heyne. Subsequently not recorded by anybody from any definite locality in Deccan besides the above said general statement. Even Almeida (1968) was unable to locate this species in any of the Indian herbaria. The present record, therefore, from Bijapur district in Karnataka State is very interesting and noteworthy. Growing on bouldery, grassy slopes in a dry locality. Common on the spot.

This species can be easily distinguished from the other species of the genus *Boerhavia* L., by its sessile or subsessile, capitate flowers except *B. diffusa* L. from which it can be readily differentiated by its robust scabrid nature, comparatively smaller leaves which are scabrid above, much smaller petioles and 5-6 pairs of nerves.

*Fl. & Fr.*: Aug.-Oct.

*Specimens examined*: Bijapur district: Savalgi Forest Plantation, Jamkhandi, 142968; Badami, *Talbot* 2795 (17.10.1894)—a poor specimen without flowers and fruits and hence a little doubtful.

### EUPHORBIACEAE

**Jatropha heynei** Balak. in Bull. Bot. Surv. India 3: 40. 1962. *J. heterophylla* Heyne ex Hook. f. Fl. Brit. Ind. 5: 382. 1887, *non* Steud. 1840.

So far considered to be confined to Andhra Pradesh & Tamil Nadu Hooker f., *l. c.* & Gamble, 1957) and collected only once by Rao & Razi (1981) from Mysore district, it is now being reported from Bellary and Chitradurg districts in Karnataka State as a noteworthy plant. Frequent herbs upto 30 cm tall and with huge tuberous rootstocks in dry, gritty or rocky situations.

*Fl. & Fr.*: Aug.-Sept.

*Specimens examined*: Bellary district: Antapur Reserve Forest, 143086. Chitradurg district: Chalakere-Chitradrug Road, 6.4 km, 132981.

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